Particle Model Year 7 Summative Comment		***Curriculum Checkpoints: What do students know and what can they do?***				***YT Clips***
		Developing	**Securing**	**Mastering**	**Excelling**	
	Substantive Knowledge	I need to..... state that materials are made up of particles. ..... be able to match particle models to the properties of a material. ..... describe how materials are made up of particles. ..... identify a substance in its three states. ..... match properties of the three states of matter to the name of the state. ..... describe the properties of a substance in its three states. .....describe how substances change as the temperature changes. ..... state the meaning of the term melting point. I need to know that a substance is a solid below its melting point and a liquid above it. ..... describe boiling as a change of state. ..... recognise that different substances boil at different temperatures. ..... know that a substance is a gas above its boiling point. ..... use the particle model to explain boiling. .....recall changes of state involving gases. .....describe changes of state involving gases. .....describe how particles change in their arrangements during evaporation, condensation, and sublimation. .....describe examples of diffusion. ..... describe the movement of particles in diffusion. ..... use the particle model to explain diffusion.....describe evidence for diffusion. ..... describe simply what gas pressure is. .....state examples of gas pressure in everyday situations. .....use the particle model to explain gas pressure. ..... describe the factors that affect gas pressure.	I can..... state that materials are made up of particles. I am able to match particle models to some of the properties of a material. .....partially describe how materials are made up of particles using diagrams. .....identify a substance in its three states. I partially can match properties of the three states of matter to the name of the state. .....partially describe the properties of a substance in its three states. partially use ideas about particles to explain the properties of a substance in its three states. .....partially describe how substances change as the temperature changes. ..... partially state the meaning of the term melting point. .....partially identify a substance is a solid below its melting point and a liquid above it. .....partially discuss the change in particle movement during melting and freezing, using particle diagrams to help. .....describe boiling as a change of state. .....recognise that different substances boil at different temperatures. I partially know that a substance is a gas above its boiling point. .....partially use the particle model to explain boiling. .....partially explain why different substances boil at different temperatures. .....recall changes of state involving gases. ..... partially describe changes of state involving gases. .....partially describe how particles change in their arrangements during evaporation, condensation, and sublimation. ..... describe examples of diffusion. ..... partially describe the movement of particles in diffusion. .....partially use the particle model to explain diffusion. ..... partially describe evidence for diffusion .....partially describe why diffusion is faster at higher temperatures. ..... describe simply what gas pressure is. .....state examples of gas pressure in everyday situations. .....partially use the particle model to explain gas pressure. .....partially describe the factors that affect gas pressure.	I can..... confidently match particle models to most of the properties of a material. ..... confidently describe how materials are made up of particles, using diagrms. .....confidently match properties of the three states of matter to the name of the state. .....confidently describe the properties of a substance in its three states. .....confidently use ideas about particles to explain the properties of a substance in its three states. .....confidently discuss the properties of a range of substances in their three states. .....confidently describe how substances change as the temperature changes. .....confidently can state the meaning of the term melting point. .....confidently know that a substance is a solid below its melting point and a liquid above it. .....confidently can discuss the change in particle movement during melting and freezing, using particle diagrams to help. .....confidently can explain changes of state using particle kinetics and temperature. .....confidently identify that a substance is a gas above its boiling point. .....confidently use the particle model to explain boiling. .....confidently explain why different substances boil at different temperatures. .....use the particle model and latent heat to explain boiling. .....confidently describe changes of state involving gases. .....confidently describe how particles change in their arrangements during evaporation, condensation, and sublimation. .....confidently describe the movement of particles in diffusion. .....confidently ..... use the particle model to explain diffusion. .....confidently describe evidence for diffusion. .....confidently describe the movement of particles in diffusion. .....confidently use the particle model to explain diffusion. .....confidently describe evidence for diffusion. .....confidently use particle diagrams to explain how gas pressure is created. ..... partially explain, using particle diagrams, what happens to gas pressure as the temperature increases.	I can..... expertly match particle models to all the properties of a material. .....expertly explain how a range of materials are made up of particles using diagrams. .....expertly discuss the properties of a range of substances in their three states. .....expertly use ideas about how fast particles are moving to explain the properties of a substance in its three states. .....expertly understand how to classify substances which behave unusually as solids, liquids or gases. .....expertly discuss the change in particle movement during melting and freezing, using particle diagrams to help. .....expertly explain changes of state using particle kinetics and temperature. .....expertly explain why there is a period of constant temperature during melting and freezing. .....expertly use the particle model to explain boiling. .....expertly explain why different substances boil at different temperatures. .....confidently use the particle model and latent heat to explain boiling. .....confidently explain why different substances boil at different temperatures using particle diagrams and latent heat. .....confidently use a particle model to explain evaporating, condensing, and subliming. .....expertly use the particle model to explain diffusion. .....expertly describe evidence for diffusion. .....confidently use particle diagrams to explain how diffusion occurs and the factors that affect it. .....confidently describe and explain why diffusion is faster at higher temperatures. .....expertly describe the factors that affect gas pressure. .....expertly use particle diagrams to explain how gas pressure is created. .....confidently explain, using particle diagrams, what happens to gas pressure as the temperature increases. ..... confidently explain unfamiliar observations about gas pressure in terms of particles.	https://www.youtube.com/watch?v=frFFoiXwqww
	Disciplinary Knowledge	I need to ..... use the particle model to explain why different materials have different properties. .....draw before and after diagrams of particles to explain observations about changes of state. .....draw, withy help, before and after diagrams of particles to explain observations about diffusion. ..... draw before and after diagrams of particles to explain observations about gas pressure	I can..... partially use the particle model to explain why different materials have different properties. .....partially draw before and after diagrams of particles to explain observations about changes of state. ..... partially draw before and after diagrams of particles to explain observations about diffusion. .....partially draw before and after diagrams of particles to explain observations about gas pressure	I can..... confidently relate the features of the particle model to the properties of different materials in different states. .....confidently draw before and after diagrams of particles to explain observations about changes of state. ..... confidently make predictions about what will happen during unfamiliar physical processes, in terms of particles and their energy. ..... confidently draw before and after diagrams of particles to explain observations about changes of state. .....confidently make predictions about what will happen during unfamiliar physical processes, in terms of particles and their energy. .....confidently draw before and after diagrams of particles to explain observations about diffusion. .....confidently draw before and after diagrams of particles to explain observations about gas pressure.	I can..... expertly evaluate particle models that explain why different materials have different properties. .....expertly understand how to evaluate observations that provide evidence for the existence of particles. .....expertly interpret melting point data to explain the particle movement of different substances at given temperatures. ..... expertly draw before and after diagrams of particles to explain observations about changes of state. ..... expertly make predictions about what will happen during unfamiliar physical processes, in terms of particles and their energy. .....expertly draw before and after diagrams of particles to explain observations about diffusion. .....expertly draw before and after diagrams of particles to explain observations about gas pressure.	https://www.youtube.com/watch?v=OOI5yVVxMQE